



MASENO SCHOOL MOCK – 2022

Kenya Certificate of Secondary Education



450/1

Paper 1

COMPUTER STUDIES

Sept. 2022 – 2 Hours

Name Admission Number

Class Date Candidate's Signature.....

Instructions to candidates

- Write your name and admission number in the spaces provided above.
- Write your class, date of examination and sign in the spaces provided above
- This paper consists of two sections: **A** and **B**
- Answer **All** questions in section **A**
- Answer question 16 and any other three in section **B**
- All answers should be written in the spaces provided.
- This paper consists of **12** printed pages
- Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- Candidates should answer the questions in English.

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1-20	30	
B	21-24	20	
C		20	
		20	
Total Score		90	

SECTION A

1. Differentiate between computer on board devices and peripheral devices giving an example in each case. (3 marks)

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2. State two advantages of using a mouse as an input device. (2 marks)

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3. List and explain any four factors to consider when acquiring a monitor. (4 marks)

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4. a) What is a user-friendly operating system? (1 mark)

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b) Give two features of a user-friendly operating system. (2 marks)

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5. State the purpose of the following utility software.

i) Device driver (1 mark)

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ii) File compression

(1 mark)

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6. Explain the following types of paragraph alignment

i) Centred

(1 mark)

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ii) Justified

(1 mark)

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7. Give two advantages of using tables to represent data in word processing.

(2 marks)

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8. State two advantages of using DTP software over word processor.

(2 marks)

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9. Explain the following two categories of Desktop Publishing Software

i) Graphic based DTSP

(1 mark)

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ii) Layout-based DTSP

(2 marks)

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10. a) List two components needed for internet connection. (2 marks)

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b) Write the following acronyms in full (2 marks)

i) HTML

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ii) URL

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11. State any three functions of an antivirus software. (3 marks)

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12. Give any two features of a good password. (2 marks)

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13. Draw a well labelled diagram of the data processing cycle. (3 marks)



14. Give three ways in which robots can be used in the army during war. (3 marks)

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15. Explain three effects of ICT on employment. (3 marks)

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SECTION B.

Answer question 16 (Compulsory) and any other three questions.

16. a) State three advantages of using high level programming language. (3 marks)

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b) What is meant by the term system entropy? (2 marks)

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c) Differentiate between hard systems and soft systems. (2 marks)

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d) The gross salary of Bright Technologies is based on basic salary, year's worker and monthly commission based on monthly sales profit as follows;

- Employees who have worked for more than 5 years receive an additional pay of 5% to their basic salary.
- Monthly commissions are based on monthly sales profit of computers and accessories as follows

Monthly sales profit	Commission rate %
Above 100,000	20
Between 50,000 and 100,000	15
Between 0 and 50,000	5

Draw a flowchart that would be used to calculate the gross salary.

(8 marks)



17. a) Define the following terms

i) Bit

(1 mark)

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ii) Byte

(1 mark)

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b) Convert $10^{1/3}$ to its binary equivalent.

(3 marks)

c) Subtract 111_2 from 10011_2

(2 marks)

d) Find the value of x in the equation below

(2 marks)

$$X_2 + 1101_2 = 1000110_2$$



- e) Perform the following arithmetic operation using two's complement.
 $34_8 - 67_{10}$ leaving your answer in binary form.

(6 marks)

18. The table below shows a worksheet containing information on household items. Use it to answer the question that follow.

NO	A	B	C	D	E
1.	Item description	No of Units	Cost per unit	Total cost	
2.	Wheat flour	12	110		
3.	Rice	6	145		
4.	Sugar	7	140		
5.	Salt	2	20		

- a) Write a formula to calculate the total cost of rice.

(1 mark)

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- b) The prices of all items increased by 10% and the value 10% is placed in all B8. Using cell addresses with absolute referencing only, write a formula to calculate the new price of salt.

(2 marks)

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c) Write a function to display the number of cells in which the cost per unit is equal to 110. (2 marks)

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d) Write a function to display the least total cost for all items. (2 marks)

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e) What is meant by each of the following terms as used in the internet? (1 mark)

i) Surf

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ii) Uploading (1 mark)

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iii) Inbox (1 mark)

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f) List three ways in which parents can protect their children from accessing inappropriate content from the internet. (3 marks)

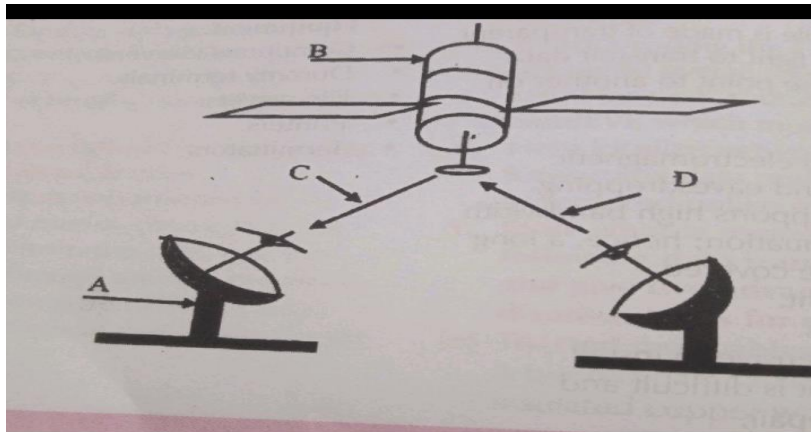
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g) State the two problems associated with using e-mail technology for communication (2 marks)

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19. Study the diagram below and answer the questions that follow.



a) Name the communication media shown in the above diagram. (1 mark)

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b) Name the parts labelled A,B,Cand D (4 marks)

A.....
B.....
C.....
D.....

c) List three advantages of the above communication media. (3 marks)

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d) State any three advantages of networking. (3 marks)

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e) List four factors to consider when choosing an input device. (2 marks)

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f) State any two advantages of real time processing (2 marks)

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20.a) State one function of each of these objects in a database. (4 marks)

i) Table.....

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ii) Query.....

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iii) Forms.....

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iv) Reports.....

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b) State two features of a primary key field. (2 marks)

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c) Briefly describe the following field properties (3 marks)

i) Format.....

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ii) Input mask.....

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iii) Required.....

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d) List any two sources of graphics in a word processor (2 marks)

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e) List two health problems associated with improper sitting posture while using a computer.

(2 marks)

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f) State two ways of mitigating intellectual property theft (piracy)

(2 marks)

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